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Culprits or Bystanders?
Offshore Jurisdictions and the Global Financial Crisis

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ABSTRACT

Questions have been raised regarding the role of low-tax offshore jurisdictions in the global financial crisis, based largely on evidence that many problematic asset-backed securities were issued from or listed in the Cayman Islands, Jersey, Ireland, and other 'offshore' sites. However, there has not been a systematic investigation of the offshore geography of crisis-implicated securitization. Here we fill this gap by constructing the first comprehensive jurisdictional map of the largest pre-crisis Asset-Backed Commercial Paper (ABCP) programs, and examining the rationale for and impacts of this geography in detail. We show that offshore jurisdictions were disproportionately involved in producing the most unstable ABCP classes. However, this is difficult to explain in terms of the traditional role of offshore banking centers as sites for direct avoidance of onshore regulation and transparency. Rather, we propose a Minskian model of pre-crisis offshore ABCP production, wherein these jurisdictions specialized in alleviating incidental institutional frictions (e.g. double taxation) hindering onshore financial innovation. In this context, they could sometimes be legitimately described as improving the institutional 'efficiency' of financial markets; however, by facilitating the endogenous evolutionary instability of these markets, this apparently innocuous service had profoundly negative effects. This normative disconnect poses a conundrum for offshore reform.

JEL Codes: E02, F38, G01, G23, G28, H21, H87, K22, K34

Keywords: Offshore Financial Centers, Global Financial Crisis, Shadow Banking, Asset-Backed Commercial Paper, Special Purpose Vehicles, Financial Instability Hypothesis

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1. INTRODUCTION: OFFSHORE JURISDICTIONS AND THE GLOBAL FINANCIAL CRISIS

While a wide diversity of views exists as to the causes of the 2007-2009 global financial crisis, these causes have tended to be theorized within relatively narrow geographic parameters. This theorization has generally emphasized some combination of globally and nationally-framed processes, whether regulatory, macroeconomic, or political in nature. Meanwhile, the financial centers where crisis-implicated activities were conducted have received relatively little scholarly attention. This omission not only contrasts with an emphasis in public discourse on the role of 'Wall Street' or 'The City' in the crisis, but overlooks a long tradition of financial geographic research on the role of financial centers in the world economy. As this has underscored, financial centers are not simply incidental sites of financial actor residence, but play a key role in shaping the informational, cultural, and political milieus which condition the conduct and evolution of financial activity.[1] As such, it is only by directly addressing their role that the production of financial crises can be effectively analyzed.[2]

The global financial crisis unfolded as a collapse of the shadow banking system, wherein traditional bank lending and deposit-taking were simulated through the production, purchase and trading of securities.[3] It is possible to identify two categories of financial center involved in these activities.[4] The first were the 'world cities' that served as sites for their functional coordination. In the context of shadow banking, the agglomeration of financial professionals and firms in these cities facilitated not only the flow of information within markets, but also innovation in the securitization 'knowledge industry.' Sitting at the apex of this world city network was the Wall Street-City 'NY-LON axis,'[5] which occupied a dominant global position in securities issuance, trading, and development.

The role of the second category of financial center involved in crisis-implicated shadow banking activities is more poorly understood. These were the offshore jurisdictions hosting the

[1] See Johnathon V Beaverstock, Richard G Smith and Peter J Taylor, 'World City Network: A New Metageography?' (2000) 90 *Annals of the Association of American Geographers* 123; Peter J Taylor, Gilda Catalana and David Walker, 'Multiple Globalisations: Regional, Hierarchical and Sectoral Articulations of Global Business Services through World Cities' (2004) 24 *Service Industries Journal* 63; Nigel Thrift, 'On the Social and Cultural Determinants of International Financial Centres: The Case of the City of London' in R Martin, N Thrift and S Corbridge (eds), *Money, power and space* (Blackwell 1994) 327–355;.

[2] See Ronald Martin, 'The Local Geographies of the Financial Crisis: From the Housing Bubble to Economic Recession and Beyond' (2011) 11(4) *Journal of Economic Geography* 587; Dariusz Wójcik, 'The Dark Side of NY-LON: Financial Centres and the Global Financial Crisis' (2013) 50(13) *Urban Studies* 2736.

[3] Financial Crisis Inquiry Commission (FCIC), *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States* (U.S. Government Printing Office 2011); Gary Gorton and Andrew Metrick, 'Regulating the Shadow Banking System' (2010) *Brookings Papers on Economic Activity* 261; Zoltan Pozsar, Z., Tobias Adrian, Adam Ashcraft, Haley Boesky, *Shadow Banking* (2010, revised 2012) Federal Reserve Bank of New York Staff Reports No 458;.

[4] See framework in Neil M Coe, Karen P Y Lai and Dariusz Wójcik, 'Integrating Finance into Global Production Networks (2014) 48 *Regional Studies* 761; Wójcik (n 2) 2736; Dariusz Wójcik, 'Where Governance Fails: Advanced Business Services and the Offshore World' (2013) 37 *Progress in Human Geography* 330.

[5] Wójcik (n 2) 2736

formal legal vehicles that constituted the 'paper' geography of the shadow banking sector.[6] It is known that securitization special purpose vehicles (SPVs) domiciled in low-tax, 'light-touch' regulation jurisdictions such as the Cayman Islands, Jersey, and Ireland, were linked to some of the most high-profile bank failures in the global financial crisis.[7] Furthermore, several critical accounts of the offshore world have argued that these jurisdictions were partially to blame for the crisis in a fairly direct sense.[8] However, analyses of the role of offshore jurisdictions as securitization SPV hosts, or sites for structured finance securities listing (e.g. Ireland[9]), have struggled to draw a concrete connection between the governance of these activities and their geographic domicile, as opposed to simply existence.[10]

At most, analyses have implicated the geography of shadow banking securitization vehicles and securities exchange listings in the undermining of relatively peripheral points of European securities regulation.[11] This is difficult to square with both the status of the United States as the homeland of the subprime crisis and shadow banking, and the more fundamental importance of prudential regulatory failure in this context. More commonly, issues of tax efficiency have been cited as primary motivations for the offshore location of securitization

[6] For a discussion of the role of offshore jurisdictions / tax havens as securitization vehicle hosts, in relation to the coordinating role of major global financial centers see Thomas Wainwright, 'Tax Doesn't Have to be Taxing: London's "Onshore" Finance Industry and the Fiscal Spaces of a Global Crisis' (2011) 43(6) *Environment and Planning A* 1287; Wójcik (n 4) 330.

[7] The failure of Northern Rock, for example, has been linked to a funding vehicle in Jersey; likewise, the failure of Sachsen LB was precipitated by the failure of a similar vehicle in Ireland, where a large number of collateralized debt obligations (CDOs were also known have been exchange-listed. In perhaps the most notorious incident of the crisis, the failure of German IKB partially resulted from its purchase, via a Jersey-based vehicle, of a Goldman Sachs-underwritten CDO issued in the Caymans. See Ronen Palan, Richard Murphy and Christian Chavgneux, *Tax havens: How globalization really works* (Cornell University Press 2010); Nicholas Shaxson, *Treasure Islands: Tax Havens and the Men who Stole the World* (Vintage 2011); Jim Stewart, 'Low tax Financial Centres and the Financial Crisis: The Case of the Irish Financial Services Centre' (2013) IIIS Discussion Paper No. 420 <http://www.tcd.ie/iiis/documents/discussion/pdfs/iiisdp420.pdf> accessed November 2016.

[8] See Shaxson (n 7) and Stewart (n 7). According to Shaxson (n 7) 192, 'financial markets seized up in 2007 because nobody knew, or trusted, what the other players in the market were doing, or what they were worth, or what or where their risks were. And there is nothing – nothing – like the offshore system to generate opacity.' Beyond this, 'the global offshore system…provided financial corporations with a "get out of regulation free card"' Shaxson (n7) 29.

[9] see Stewart 2013 (n 7)

[10] In their examination of the 'black holes' of the global financial system, for example, Palan and Nesvetailova discuss offshore banking and shadow banking, but do not draw a direct connection between the two. See Ronen Palan and Anastasia Nesvetailova, (2013) 'The Governance of the Black Holes of the World Economy: Shadow Banking and Offshore Finance' (2013) City Political Economy Research Centre (CITYPERC) Report No. 2013-03 < http://openaccess.city.ac.uk/2113/1/CITYPERC-WPS-2013_03.pdf> accessed November 9 2016. A particularly thorny issue is the definition and significance of 'offshore' itself in the context of shadow banking, given the apparently key role of US states (e.g. Delaware) falling within Federal regulatory jurisdiction. See Palan et al. (n 7) 161-169 and Shaxson (n 7) 166-192.

[11] Stewart (n 7); Bayer, K. M., and Bräutigam, L. 2015. 'Shadow Banking and the Offshore Nexus – Some Considerations on the Systemic Linkages of Two Important Economic Phenomena' (2015) ICAE Working Paper Series No. 40 <https://www.jku.at/icae/content/e248904/e248907/e249185/e289414/wp40.pdf> accessed November 9 2016.

vehicles.[12] However, the relationship between taxation and financial stability has not been clearly theorized in this context, with the rather innocuous device of 'tax neutrality' sometimes being squeezed into offshore financial conceptual frameworks built around the idea of overtly harmful secrecy and regulatory laxity. None of this literature has situated offshore jurisdictions within the type of ground-up analysis of international shadow banking organization and regulation necessary for their significance to be contextualized. Most problematically, we do not have the detailed empirical picture of the scale and organization of offshore shadow banking that would allow for these questions to be systematically tackled.[13] Ultimately, as noted by Palan et al. (n 7) 165, 'why so many SPVs were set up in tax havens is not entirely clear…nor is it clear what proportion of the structured finance market was set up offshore.'

In this paper, we seek to fill these gaps in the literature on offshore shadow banking by 1) compiling data from an array of archival sources (e.g. company registries, ratings agency reports, offering prospectuses) to construct the first detailed map of the jurisdictional geography of pre-crisis shadow banking, and 2) systematically analyzing the relevant academic, regulator and practitioner (e.g. legal specialist) literature on the taxation and regulation of these activities to determine the potential direct and indirect bearing of their jurisdictional geography on financial stability. Specifically, we focus on the production of the short-term Asset-Backed Commercial Paper (ABCP) which constituted one of the key outputs of the subprime mortgage-backed security assembly line from the standpoint of shadow-banking maturity and liquidity transformation. Prior to the global financial crisis, ABCP was seen as one of the least adventurous classes of debt instrument. However, the ABCP market ultimately proved to be surprisingly unstable, and played a central role in the run on the shadow-banking system that began in mid-2007. Most importantly, from the standpoint of the study here, many of the vehicles that issued ABCP are known, at an anecdotal level, to have been located in so-called 'small island' offshore jurisdictions such as the Cayman Islands.

The evidence we present fully confirms these anecdotal reports. In fact, we show that the structured investment vehicles (SIVs), collateralized debt obligations (CDOs), and credit arbitrage conduits issuing the most problematic forms of ABCP were disproportionately concentrated in 'small islands,' whereas more stable issuers were mostly based in 'onshore-offshore' Delaware. However, we find that this geography is difficult to explain in terms of the traditional conceptualization of offshore banking centers, wherein they are seen as sites for the direct escape of the jurisdiction of onshore authorities. The substantive onshore regulation of these activities (most importantly by the US) was so minimal that there was very little to escape from; furthermore, what little regulation there was had increasingly assumed an extra-territorialized form, by the onset of the global financial crisis, that projected onshore authority

[12] See Bayer and Brautigam (n 11); Gary B Gorton and Nicholas S Souleles, 'Special Purpose Vehicles and Securitization' In M Carey and R M Stulz (eds) *The Risks of Financial Institutions* (University of Chicago Press 2007) 546-602
<http://www.nber.org/chapters/c9619.pdf> accessed November 9 2016; Wainwright (n 6) 1287.
[13] As noted by Bayer and Brautigam (n 11).

offshore. This reflected a broader multi-decadal pattern of state political geographic adaption to globalization. Given this two-pronged narrowing of their significance as sites for overt regulatory avoidance, we argue that offshore jurisdictions had, in this context, increasingly moved into a more complex normative grey area, wherein their specialization was less in the provision of overt forms of secrecy and regulatory laxity, than a flexible political environment that facilitated rapid institutional innovation. This innovation could sometimes be legitimately described, at least in a narrow sense, as improving the institutional 'efficiency' of global financial markets; however, given the endogenous crisis-generating logic of markets described by Keynes and Minsky, this apparently innocuous behavior could also have profoundly negative systematic consequences. More than pointing the finger of blame at offshore jurisdictions per se, this underscores a fundamental conundrum in financial governance.

The remainder of the paper is divided in four sections. In section two, we conceptually problematize the logic of offshore shadow banking, and situate it within a Minskian model of offshore financial institutional innovation. Next, in section three, we provide an overview of the organization of ABCP production on the eve of the global financial crisis, before revealing its detailed jurisdictional geography. In section four, we seek to understand the significance of and rationale for these jurisdictional structures, through a combination of a process-of-elimination analysis of relevant onshore regulations—wherein we rule out the potential significance of most forms of direct offshore regulatory arbitrage—and a review of the relevant practitioner literature, which indicates that the hosting of these activities offshore was primarily motivated by more subtle and innocuous factors such as tax neutrality, speed of entity creation, and bankruptcy resolution law. Finally, in the conclusion, we examine the policy implications of these findings. Specifically, we suggest that certain types of institutional 'inefficiency' may need to be explicitly recognized and protected as a 'Minskian Tobin Tax' on financial innovation and complexity.

2. FROM 'BLACK HOLES' TO 'BALL BEARINGS': A MINSKIAN MODEL OF OFFSHORE SHADOW BANKING DEVELOPMENT

Historically, offshore banking has primarily been motivated by the desire to directly escape the reach of onshore authorities—most importantly via the avoidance of financial regulation in the Euromarket, and the sheltering of assets from taxation in secrecy havens.[14] As noted above, there have been some attempts to apply this understanding of offshore jurisdictions, as secretive regulation-free spaces, to their role in the global financial crisis. There is reason to believe, however, that this model is a weaker fit in this context than for past financial and debt

[14] Mervyn K Lewis, 'International Banking and Offshore Finance: London and the Major Centres' in M P Hampton and P J Abbott (eds.) *Offshore Finance Centers and Tax Havens: the Rise of Global Capital* (Purdue University Press 1999) 43–79; Mark P Hampton, *The Offshore Interface: Tax Havens in the Global Economy* (MacMillan 1996); Palan et al (n 7) 107-149; Shaxson (n 7).

crises.[15] Specifically, the structure of international financial regulation and intermediation had, by the global financial crisis, changed in ways that either constrained or reduced the relevance of this traditional offshore banking paradigm. Firstly, the very success of offshore jurisdictions in historically spearheading an international regulatory race-to-the bottom has given the regulation-avoiding component of their business model a self-obsolescing quality. By the early-1990s, the regulatory advantage of the offshore Euromarket, in particular, had been significantly eroded.[16] Secondly, even while the territorialized regulatory frameworks of the post-WWII-era have been undermined by global capital mobility, and international regulatory competition predicated on this mobility, newer and less geographically-limited frameworks have been expanded in their place. These have increasingly given states the ability 'chase' capital across international borders, reflecting what has been described as a broader pattern of state political-geographic adaptation to the threat posed by globalization to traditional territorial sovereignty.[17] This extraterritorial adaptive capacity is unevenly distributed. However, what is crucial, from the standpoint of the global financial crisis, is that it is disproportionately concentrated in the hands of the most powerful countries, and in particular the United States. Offshore jurisdictions have been subjected to particularly intense international pressures by the US and multilateral bodies (e.g. Financial Action Task Force), since the turn of the millennium, in relation to financial transparency and information-exchange.[18] These have been far from fully successful in an absolute sense; however, they do seem to have reduced the relative onshore-offshore transparency gap. Indeed, the US in particular has often leveraged the same international political clout that allows it to dictate reforms elsewhere, to avoid reciprocation, and has increasingly been ranked below many 'small island' jurisdictions (e.g. the Caymans) on indicators of financial transparency and client due diligence.[19]

Even more important than initiatives targeting offshore jurisdictions specifically, is the fact that financial regulation generally has moved towards an extraterritorial paradigm designed to combat inter-jurisdictional arbitrage. This raises the question of whether 'offshore' activities actually operate outside of, as opposed to within, the purview of onshore regulators. The US

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[15] Most notably the Euromarket-centered 1980s LDC debt crisis, see Susan Strange, 'From Bretton Woods to the Casino Economy' in R Martin, N Thrift N and S Corbridge (eds.) *Money, Power and Space* (Blackwell 1994) 49-62.
[16] Hampton (n 14).
[17] See Linda Weiss, (1997) 'Globalization and the Myth of the Powerless State' (1997) 225 *New Left Review* 3; Nicholas Phelps, 'Gaining from Globalization? State Extra-Territoriality and Domestic Impacts—the Case of Singapore' (2007) 83(4) *Economic Geography* 371.
[18] See Lorraine Eden and Robert T Kudrle, 'Tax Havens: Renegade States in the International Tax Regime?' (2005) 27 *Law & Policy* 100; William Vlcek, W. (2007) 'Why Worry? The Impact of the OECD Harmful Tax Competition Initiative on Caribbean Offshore Financial Centres' (2007) 96 *The Round Table* 331; Jason C Sharman, 'South Pacific Tax Havens: From Leaders in the Race to the Bottom to Laggards in the Race to the Top?' (2005) 29 *Accounting Forum* 311.
[19] For comparative analyses see Alex Cobham, Petr Janský and Markus Meinzer, 'The Financial Secrecy Index: Shedding New Light on the Geography of Secrecy' (2015) 91 *Economic Geography* 281; Michael Findley, Daniel Nielson and Jason Sharman, 'Global Shell Games: Testing Money Launderers' and Terrorists' Access to Shell Companies' (2012) Griffith University Centre for Governance and Public Policy research report <http://www.gfintegrity.org/wp-content/uploads/2014/05/Global-Shell-Games-2012.pdf> accessed November 9 2016.

Securities and Exchange Commission (SEC) has increasingly assumed the role of a global securities regulator.[20] Even more importantly, a succession of Basel Accords have redrawn the geography of international banking regulatory jurisdiction, by moving the primary locus of authority from the host states where banks operate, to the home states where they are headquartered.[21] The critical literature on offshore finance has understandably tended to either ignore or dismiss Basel, due to its demonstrable failure to actually prevent financial crises.[22] However, this has led it to overlook the qualitative regulatory implications of Basel for offshore centers specifically. Indeed, the international supervisory dilemma that historically fueled offshore banking—namely the inability of home states to control the behavior of their banks overseas—appears to have become largely inverted, with host states often struggling to protect themselves from lax regulation by home states.[23]

In fact, most analyses of the regulatory failures responsible for the global financial crisis locate these within the major onshore economies—most importantly the United States—whether in their capacity as home, host or global regulators of the largest financial firms and markets. This is particular true for shadow banking specifically, which tended to fall outside of the scope of conventional banking regulation on an intra-jurisdictional basis (see discussion in sections 3 and 4). Indeed, from its very beginning in the 1970s—in the form of money market funds and the commercial paper market—shadow banking was essentially an onshore alternative to the offshore Eurodollar market, which allowed for bank deposit interest rate caps and reserve requirements to be bypassed on US soil.[24] More recently, the exhaustive report of the US Financial Crisis Inquiry Commission identifies monumental flaws and lapses within US prudential and securities regulation that appear to explain the key shadow banking governance failures responsible for the global financial crisis.[25] Meanwhile, analyses of the participation of

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[20] Kun Y Chang, 'Multinational Enforcement of US Securities Laws: The Need for the Clear and Restrained Scope of Extraterritorial Subject-Matter Jurisdiction' (2003) 9(1) *Fordham Journal of Corporate & Financial Law* 89; John Deacon, *Global Securitisation and CDOs* (Wiley 2004) 55-60; Douglas Davison and Scott Litvinoff (2013) 'Update: Tourre Extends SEC's Reach for Foreign Transactions Involving Domestic Offerings' (2013) 45 *Securities Regulation & Law Report*.

[21] Katia D'Hulster, 'Cross Border Banking Supervision: Incentive Conflicts in Supervisory Information Sharing between Home and Host Supervisors' (2012) 13 *Journal of Banking Regulation* 300; Richard J Herring, 'Conflicts Between Home and Host Country Prudential Supervisors' in D. Evanoff, J LaBrosse and G. Kaufman (eds.) *International Financial Instability: Global Banking and National Regulation* (World Scientific 2007); Katharina Pistor, 'Host's dilemma: Rethinking EU Banking Regulation in the Light of the Global Crisis' (2010) Columbia Law and Economics Working Paper No 378 < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1631940> accessed November 9 2016.

[22] See Hampton (n 14); Lewis (n 14) 43; Strange (n 15) 49.

[23] I.e. the 'host's dilemma' described by Pistor (n 21). For a discussion of home-state regulatory competition under Basel see Mathias Thiemann, 'In the Shadow of Basel: How Competitive Politics Bred the Crisis' (2014) 21(6) *Review of International Political Economy* 1203.

[24] Hyman P Minsky, 'Capitalist Financial Processes and the Instability of Capitalism' (1980) 14(2) *Journal of Economic Issues* 505.

[25] FCIC (n 3).

non-US financial firms in crisis-implicated shadow banking activities have located the most important regulatory failures at the home state level, particularly in Europe.[26]

This apparently superfluous nature of the offshore location of shadow banking, in relation to the regulatory failures responsible for the crisis, makes the reported pervasiveness of this location something of a paradox from the standpoint of the traditional offshore banking model. Resolving this paradox, we argue, requires a normative re-problematization of the role of offshore jurisdictions in international finance. This, on the one hand, acknowledges their potential to provide services that may be (in some sense) beneficial, and, on the other, more broadly construes the level at which these services can be considered harmful. The first requires moving away from an understanding of offshore jurisdictions that emphasizes their pursuit of particular harmful policies, to a definition of offshore emphasizing a particular brand of local politics. Meanwhile, the second requires adopting a Minskian conceptualization of endogenous market instability, wherein financial crisis production is seen as primarily rooted in the private rather than public sector.

The first of these shifts is already underway in the literature on offshore political economy. Nicholas Shaxson, for example, argues that the defining feature of offshore jurisdictions is a profound condition of state capture by local and global financial elites, which transforms them into 'politically stable' 'fast and flexible private law-making machines.'[27] As he emphasizes, this role can, notably, be played by subnational as well as national political units, most prominently by the US state of Delaware. However, this politics-based definition of offshore still tends to be treated as interchangeable with more narrowly policy-based definitions. Typically, the focus is on some combination of financial secrecy and tax avoidance/evasion, with the terms 'secrecy jurisdiction' and 'tax haven' often used as stand-ins for the term 'offshore jurisdiction.'[28] This juxtaposition creates two dilemmas. Firstly, the idea of a narrow policy specialization sits uneasily with the open-ended flexibility implied by a politically-based understanding of offshore states. In this vein, Christopher Le Marchant argues that a focus on questions such as secrecy misses the more basic role of offshore jurisdictions as institutional 'laboratories,' 'wherein the more flexible and innovative atmosphere of offshore has enabled offshore centers to invent or pioneer products and services.'[29] Secondly, and relatedly, it creates an expectation that offshore practices can be easily and uncontroversially labeled as harmful.

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[26] E.g. of European bank-sponsored securitization vehicles, see Carlos Arteta, Mark Carey, Ricardo Correa and Jason Kottor, 'Revenge of the Steamroller: ABCP as a Window on Risk Choices' (2013) Board of Governors of the Federal Reserve System International Finance Discussion Papers Number 1076 <https://www.federalreserve.gov/pubs/ifdp/2013/1076/ifdp1076.pdf> accessed November 9 2016; Viral V Acharya, Philipp Schnabl and Gustavo Suarez, 'Securitization without Risk Transfer' (2013) 107(3) *Journal of Financial Economics* 515; Thiemann (n 23) 1203.

[27] Shaxson (n 7) 184.

[28] See Palan et al. (n 7); Shaxson (n 7)

[29] Christopher M Le Marchant, 'Financial Regulation and Supervision Offshore: Guernsey, a Case Study' in M P Hampton and J P Abbott (eds.), *Offshore Finance Centers and Tax Havens: the Rise of Global Capital* (Purdue University Press 1999) 43–79.

This is ill-suited to deal with the potential of jurisdictions to retreat, in the face of international reform pressure, into a normative grey area.

In fact, there is reason to believe that offshore jurisdictions can, in principle, serve as sites for useful forms of institutional innovation. This potential legitimacy rests on the fact that actually-existing economic activity has institutional overhead costs, with all institutional frameworks being, furthermore, path-dependent accretions of 'second-best' workarounds to historical problems. As rightly emphasized by offshore critics, many onshore tax and regulatory costs of business have a clear and necessary social purpose. Consequently, their circumvention constitutes a zero- or negative-sum wealth transfer, rather than, as claimed by offshore defenders, a positive-sum improvement of economic institutional efficiency.[30] However, the situation is more complex where inherited onshore institutions impose unintentional burdens on economic activity. Research suggests, for example, that offshore jurisdiction use by Chinese and former Soviet Union companies largely reflects the capitalist institutional legal vacuum in post-communist transition economies.[31] This is not to say that these jurisdictions are not used for dishonest purposes, but rather that this is not always the only, or even the primary rationale for their use. Russia, for example, did not create an onshore company law until 1996, several years after the beginning of mass privatization.[32] In China, meanwhile, the most widespread use of offshore jurisdictions appears to be as conduits for listings on overseas exchanges (typically New York or Hong Kong).[33] The fact that state-owned national champions account for a substantial share of these offshore-structured listings, is a strong indication that the Chinese government sees them as a mechanism for enhancing, rather than undermining, the onshore institutional framework.[34] Indeed, in the context of these listings, offshore jurisdictions (particularly 'midshore' Hong Kong) arguably provide transparency, rather than secrecy, to opaque and lawless mainland financial markets.

For countries with more developed legal systems, the potential draw of relatively strong but low-cost offshore institutional frameworks is less pronounced. However, there are often qualitative differences between national institutional regimes—e.g. civil versus common law jurisdictions—which are the product of historical path dependencies, and may have advantages or disadvantages for any particular transaction (e.g. securitizations[35]). More broadly, offshore

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[30] See Discussion in Palan et al. (n 7) 154-158.

[31] Jason C Sharman, 'Chinese Capital Flows and Offshore Financial Centers' (2012) 25 *Pacific Review* 25 317; 'Delphine Nougayrède, 'Outsourcing Law in Post-Soviet Russia' (2013) 3(6) *Journal of Eurasian Law*.

[32] Nougayrède (n 31).

[33] Sharman (n 31); Dylan Sutherland and B Matthews, '"Round Tripping" or "Capital Augmenting" OFDI? Chinese Outward Investment and the Caribbean Tax Havens' (2009) Paper prepared for Leverhulme Centre for Research on Globalisation and Economic Policy (GEP), University of Nottingham < https://www.nottingham.ac.uk/gep/documents/conferences/2009/janconfmalaysia2009/dsutherland.pdf> accessed November 9 2016.

[34] E.g. China Mobile, see Dariusz Wójcik and James Camilleri, 'Capitalist Tools in Socialist Hands? China Mobile in Global Financial Networks' (2015) 40(4) *Transactions of the Institute of British Geographers* 464.

[35] See Steven L Schwarcz, Bruce A Markell and Lissa L Broome, *Securitization, Structured Finance, and Capital Markets* (Carolina Academic Press 2004) 172-176.

jurisdictions may facilitate the creation of flexible, a-la-carte contractual arrangements, in areas such as bankruptcy resolution. The latter casts a particularly long-shadow of potential litigation costs and legal uncertainty over financial activity, which may raise the present cost of finance; the avoidance of this shadow through 'bankruptcy remote'[36] securitizations can thus be considered a form of transaction cost reduction, which may or may not be additionally motivated by regulatory arbitrage.[37] Finally, offshore jurisdictions have increasingly rebranded themselves in terms of the rather slippery concept of 'tax neutrality,' or the lack of additional taxation beyond what is due onshore.[38] Where combined with indefinite deferral of onshore tax liabilities (e.g. by US corporations), this can be tantamount to tax avoidance. However, this is not necessarily the case for vehicles that continuously pass through cash flows from one location/party to another, where offshore locales are more likely to be used to avoid double-tax 'leakages' along the chain of intermediation. The purpose of such vehicles is not to avoid taxation; rather, a tax-neutral structure facilitates their creation for other purposes, such as issuing or holding securities.

That these offshore services are, in and of themselves, relatively innocuous, does not mean that they cannot have pernicious effects. On the contrary, it potentially makes their negative impacts more profound and intractable. In order to fully theorize these impacts, in the area of banking regulation, it is necessary to adopt an endogenous perspective on financial instability and crisis.[39] In an exogenous theory of market instability, crises are seen to result from limited points of failure in the otherwise sound operation of markets. In neoclassical economics, these failures are typically ascribed to excessive and or poorly designed state interventions. Right wing pundits in the US, for example, often blame the subprime crisis on low-income household lending quotas, and government-sponsorship of Fannie Mae and Freddie Mac. In contrast, in an endogenous theory of market instability, financial crises are viewed as an intrinsic product of private sector behavior.[40] This idea has been notably underdeveloped in the literature on offshore political economy. This has, while debunking neo-classical critiques of 'excessive' onshore regulation,[41] constructed what is in some respects a new narrative of exogenous government-driven financial instability focused on offshore states. In contrast, the endogenous perspective on offshore-exacerbated financial instability proposed here does not dispute the idea, in principle, that these jurisdictions may help to make 'markets work' by

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[36] I.e. the movement of assets and liabilities into a vehicle removed from the potential bankruptcy estate of a firm, and typically also structured so that its own potential bankruptcy risks and costs are minimized.
[37] See Gorton and Souleles (n 12).
[38] Gorton and Souleles (n 7); Wainwright (n 6) 1287.
[39] Piero Ferri and Hyman P Minsky, 'Market Processes and Thwarting Systems' (1992) 3 *Structural Change and Economic Dynamics* 79; John M Keynes, *The General Theory of Employment, Interest and Money* (Macmillan Cambridge University Press 1936); Minsky (n 24) 505; Hyman P Minsky, 'The Financial Instability Hypothesis' (1992) The Jerome Levy Economics Institute Working Paper No 74 <http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=161024> accessed November 9 2016.
[40] Taking into account, as noted by Ferri and Minsky (n 38) 79, that monetary and fiscal backstops may impart an asymmetry into business cycles that encourages long-term asset-inflation.
[41] See discussion in Palan et al. (n 7) 154-158

streamlining their institutional overhead costs. Rather, we argue that it is precisely in this efficiency-enhancing capacity that they can potentially cause severe damage.

As theorized in the works of Keynes and Minsky, capitalist financial systems contain positive feedback loops that automatically generate cyclical boom-bust dynamics.[42] Two factors are, in combination, a particularly acute source of instability. Firstly, the government only has limited and indirect control over monetary expansion and contraction. Money is rather an endogenous product of private sector credit creation, the volume of which primarily reflects the level of demand for capital assets. Secondly, the demand for debt-financed investment in capital assets is conditioned by, and in-turn conditions, a combination of expected future profits and current ability to service or refinance debt payments—as determined by both asset yields and capital gains. The result is a positive feedback relationship that generates alternating periods of self-reinforcing asset price inflation and debt deflation. Crucially, according to Minsky, private actors do not simply create credit within the existing financial institutional framework, but can modify this framework through the invention of new types of credit instrument. Consequently, a process of outright inter-jurisdictional arbitrage, or intra-jurisdictional deregulation, is unnecessary, in principle, to regulatory failure; rather, any given regulatory framework will tend to continuously become obsolete. Indeed, as financial stability fosters the Keynesian 'animal spirits' that motivate financial innovation, the very effectiveness of regulation is actually a direct cause of its obsolescence.

Ultimately, the fact that it did not so much circumvent specific banking regulations, as the traditional definition of banking itself, makes this perhaps the most compelling theory of the trajectory of shadow banking development that produced the global financial crisis.[43] Indeed, although there was a strongly laissez faire political impulse from the 1980s to 2000s, its most important manifestation was arguably a misplaced faith in the stability of new credit instruments, as opposed to the deregulation of older ones (for conventional banking Basel actually restored oversight to the Keynesian-era offshore regulatory void). However, what Minsky's model does not directly address, is that financial innovations designed to skirt directly relevant regulations might be obstructed by a host of other tax, legal, and regulatory issues which are entirely incidental. In other words, financial innovation is likely to be slowed by a generalized 'friction' with the inherited institutional environment. It is their ability to help financial actors overcome such frictions, we argue, that has increasingly become the core specialization of the offshore institutional 'laboratory' in relation to financial innovation. This is not to say that they have not in the past, and do not continue to more directly facilitate escape from onshore regulation. However, as traditionally territorialized regulatory frameworks have either been eroded by international regulatory competition and arbitrage, or replaced by more geographically robust extraterritorial frameworks, this role of offshore centers as financial governance 'black holes'

[42] Ferri and Minsky (n 39) 79; Keynes (n 39); Minsky (n 24) 505; Minsky (n 39).
[43] See L Randall Wray, 'The Rise and Fall of Money Manager Capitalism: A Minskian Approach' (2009) 33(4) *Cambridge Journal of Economics* 807.

has increasingly taken a backseat to their more subtle role as financial innovation 'ball bearings.'[44]

As we show in the following sections, using the case of asset-backed commercial paper (ABCP), this shift has made it increasingly difficult to characterize offshore policies as harmless or harmful at the jurisdictional level. Rather, this is contingent on their broader contextual insertion into the global financial networks constructed by private-sector actors. This makes the reform of the offshore world a more complex dilemma than is typically recognized.

3. MAPPING THE GEOGRAPHY OF PRE-CRISIS ABCP-PRODUCTION AND FAILURE

The 2007-2009 global financial crisis unfolded as a bank run, wherein financial intermediaries found themselves unable to rollover short-term debt liabilities due to a generalized loss of confidence in borrower creditworthiness.[45] In contrast to a traditional bank run characterized by deposit-flight, however, the crisis took the form of a run on short-term shadow-banking liabilities, namely commercial paper (CP) and asset-backed commercial paper (ABCP) issued by on- and off-balance sheet vehicles, overnight repo credit collateralized by longer-term asset-backed securities (ABS), and shares of money market mutual funds investing in the CP/ABCP and repo markets. What renders banks susceptible to runs is the process of maturity and liquidity transformation, whereby liquid, short-maturity debt funding is reinvested as illiquid, long-term loans. In the pre-crisis shadow-banking system, the function of maturity and liquidity transformation primarily occurred through the funding of long-term securitized and non-securitized investments via the wholesale CP/ABCP and repo markets. Maturity transformation was also performed by money market mutual funds, which fund short-term CP and ABCP purchases and repo lending with very short-term, demand deposit equivalent, stable Net Asset Value (NAV)[46] shares. In the pre-crisis subprime mortgage securitization chain, CP and repo primarily acted as working credit used by financial firms to fund loan origination and other intermediate on-balance sheet stages of securitization. Meanwhile, the end product of the securitization process was typically the sale of assets to off balance sheet special purpose vehicles/entities (SPVs/SPEs) issuing either ABCP or longer-term ABS, which could be sold to a variety of institutional investors (e.g. pension funds, mutual funds, insurance companies).[47]

From the standpoint of maturity and liquidity transformation, ABCP-issuing SPVs served as key 'shadow banks' within the securitized credit intermediation chain. Importantly, as the ABCP issued by these vehicles was both very highly rated, and of very short maturity, it could

[44] Bill Maurer, 'Re-Regulating Offshore Finance?' (2008) 2(1) *Geography Compass* 155.
[45] Gary Gorton and Andrew Metrick, (2012) 'Securitized Banking and the Run on Repo' (2012) 104(3) *Journal of Financial Economics* 425.
[46] I.e. redeemable at a guaranteed constant face value.
[47] See Pozsar et al. (n 3) for a detailed overview of pre-crisis shadow banking.

be purchased by the money market funds which served as the primary 'deposits' in the shadow banking system.[48] Most ABCP-issuing vehicles were created and sponsored by banks, as a mechanism for reducing regulatory capital by moving assets into nominally off-balance sheet vehicles. Crucially, these vehicles were 'bankruptcy remote'—i.e. structured to be excluded from the sponsor's estate in the event of its bankruptcy, so that investors were only exposed to credit risk from the vehicle's own assets. However, due to the short maturity (< 3 months) of the paper they issued, they were also inherently dependent on explicit or implicit sponsor backstops to mitigate the risk of investor runs.[49] Liquidity support (e.g. investor put options) was most important in practice, as it amounted to a contingent promise to repurchase securities from investors at face value, yet was typically not subject to the capital charges of overt credit support. This rendered vehicles substantively on-balance sheet from the standpoint of the risk they posed to their sponsors (or third parties to whom sponsors had transferred these risks), despite being insulated from the sponsor's own credit risk.

That many ABCP-issuing vehicles were based in jurisdictions typically identified as 'offshore' has been established at a qualitative level.[50] Beyond SPV domiciliation, it is also known that many troubled structured finance securities were exchange-listed in Ireland.[51] However, neither the detailed jurisdictional geography of this activity, nor the precise significance of this geography, has been systematically described. From an empirical standpoint, the remainder of this section seeks to understand 1) the offshore and onshore geography of domiciliation and exchange listing of ABCP-issuing vehicles by type, 2) the nationality of the ultimate sponsors of these vehicles, and 3) the jurisdictions from which vehicles were immediately sponsored. Next, in section 4, we examine 1) whether the offshore footprint of these activities could have potentially had a bearing on their onshore regulation, and 2) what the specialist/practitioner literature says about the rationale for this offshore footprint.

ABCP was issued prior to the crisis by several types of vehicle (see figures 1 and 2) whose stability was a function of the sponsor backstops they received, and the type of assets they purchased. Most stable were conventional multi-seller conduits, which were engaged in the primary securitization of loans purchased from multiple originators, and typically enjoyed a high level of direct liquidity and credit support from sponsors or third parties. These conduits in most cases had little connection to US subprime mortgage lending, rather focusing on areas such as trade receivables, credit card, and auto loans.[52] More mixed in their resilience were single-seller

[48] See Acharya et al. (n 26) 515; Daniel Covitz, Nellie Liang and Gustavo A Suarez, 'The Evolution of a Financial Crisis: Collapse of the Asset-Backed Commercial Paper Market' (2013) 68(3) *The Journal of Finance* 815; Gorton and Metrick (n 45) 425; Pozsar et al. (n 3).
[49] Gorton and Souleles (n 12); Acharya et al. (n 26) 515.
[50] See Palan et al. (n 7) 165; Shaxson (n 7) 187.
[51] See Stewart (n 7).
[52] Acharya et al. (n 26) 515; Arteta et al. (n 26).

conduits that securitized loans originated by a single firm, with home mortgage origination warehousing conduits being predictably hard hit.[53]

Less stable than primary loan securitization vehicles, in general, were the various classes of vehicle (structured investment vehicles, collateralized debt obligations, and credit arbitrage and hybrid conduits) engaged in the purchase and repackaging of ABS, including subprime residential mortgage backed securities (RMBS). Collateralized debt obligations (CDOs) were the most systemically destabilizing vehicles, as they proved to be a fundamentally faulty statistical device that was intended to convert high-risk into low-risk securities, but in practice simply passed risk on to investors.[54] Without the market for lower-rated RMBS tranches created by CDOs, it is doubtful that the subprime lending bubble would or could have reached the proportions that it did.[55] While most CDOs issued long-term ABS, some also issued short-term ABCP, which typically received liquidity support from either the underwriter or a third party.[56] ABCP-issuing CDOs were among the most problematic vehicles in the crisis, as they combined the defective credit risk management of a CDO with the liquidity risk of an ABCP conduit.[57]

In contrast to CDOs, credit arbitrage (and hybrid[58]) ABCP conduits and structured investment vehicles (SIVs) usually only purchased highly rated ABS. However, the fact that these included a substantial component of CDOs and other subprime-backed RMBS widely contaminated, and often precipitated the failures of, both of types of vehicle in the crisis. Notwithstanding their less pronounced maturity mismatch, SIVs were more severely impacted than arbitrage and hybrid conduits—indeed they entirely ceased to exist as vehicle class. Unlike arbitrage and hybrid conduits, SIVs tended to lack explicit sponsor support, being rather structured as independent lenders (essentially shell banks) whose ABCP tranches were protected by a capital structure of Medium Term Notes (MTNs) and Capital Notes (CNs). This lack of explicit sponsor backstops, combined with the pre-programming of SIVs to conduct value-destroying asset fire sales in a liquidity crunch, rendered them inherently susceptible to investor runs.[59] Ironically, most SIVs ultimately did receive sponsor support during the crisis, with investors typically not suffering losses.[60]

Figures 1 and 2 show the first comprehensive jurisdictional maps of the largest pre-crisis ABCP issuers in these different categories. Figure 1 shows the largest financial firm-sponsored ABCP conduits and SIVs as of mid-2007, while Figure 2 shows the largest CDO ABCP

[53] Covitz et al. (n 48) 815.
[54] Richard E Mendales, Collateralized Explosive Devices: Why Securities Regulation Failed to Prevent the CDO Meltdown, and How to Fix it (2009) *University of Illinois Law Review* 1359.
[55] FCIC (n 3) 127-155.
[56] Karen Mueller, Pooja Bharwani and Rodrigo Araya, 'CDOs with Short-Term Tranches: Moody's Approach to Rating Prime-1 CDO Notes' (2006) Moody's Investors Service Structured Finance Special Report.
[57] FCIC (n 3) 138-139.
[58] Hybrid conduits typically held a mixture of loans and ABS.
[59] Arteta et al. (n 26); Covitz et al. (n 48) 815; FCIC (n 3) 252-253.
[60] See Arteta et al. (n 26); Covitz et al. (n 48) 815.

programs as of YE-2005. Rankings of programs by size, and data on program sponsorship were obtained from ratings agency databases and reports (primarily Moody's, Fitch and Standard & Poor's), and cross-checked (for non-CDO programs) against the list of ABCP programs compiled by Acharya and Schnabl.[61] CDO-issued ABCP program size rankings and sponsorships were obtained from a one-off ratings agency report released in 2006,[62] necessitating the 18 month time discrepancy between the two figures. Notably, while the volume of CDO issuance increased substantially over the year-and-a-half separating the two figures, this tended to reproduce patterns established by YE-2005. Together, the vehicles in the figures accounted for approximately half of total worldwide pre-crisis ABCP issuance.[63]

While the data sources above typically include information on the geographic location of program sponsors (including, in most cases, the location of immediately sponsoring subsidiaries or branches), they only rarely specify the geography of securitization vehicle domiciliation or securities exchange listings. Due to a lack of public databases containing this information, we have hand-compiled it from exhaustive searches of online company registries, exchange prospectuses, and news articles and reports detailing specific vehicles. Company registry searches were based on vehicle name-matches, tested against a variety of entity-type suffixes (e.g. LLC, Corp., Ltd.). Results were cross-referenced wherever possible against other sources detailing individual vehicles. Exchange listing searches were based on name-match searches for programs and the most popular structured finance exchanges (Ireland, Luxembourg, London and New York). As we have been forced, in the absence of centralized public databases, to construct the results from a labor-intensive 'collage' technique, the jurisdictional patterns revealed below cannot be assumed to be error-free with respect to individual actors or relationships; rather, they should be interpreted as a best-possible view of patterns that have to date been entirely opaque.

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[61] Viral Acharya and Philipp Schnabl, 'Do Global Banks Spread Global Imbalances? Asset-Backed Commercial Paper during the Financial Crisis of 2007–09' (2010) 58 *IMF Economic Review* 37.

[62] Mueller et al. (n 56).

[63] According to Moody's ABCP Program Index the sample encompassed 49.6% ($726 billion out of $1,424 billion) of all outstanding ABCP in Q2 2007. The fact that a disproportionate number of the largest ABCP-issuers were 'exotic' vehicles such as SIVs, repo, arbitrage and hybrid conduits means that these are likely overrepresented in figure 1 in relation to 'plain vanilla' single- and multi-seller conduits. SIVs, which issued multiple securities types, are also overrepresented from the standpoint of ABCP-issuance (although their total size better reflects their systemic importance as 'shadow banks'). As we are primarily interested in the geographies of different issuer types, rather than ABCP issuers as a whole, these sampling issues do not significantly impact the analysis.

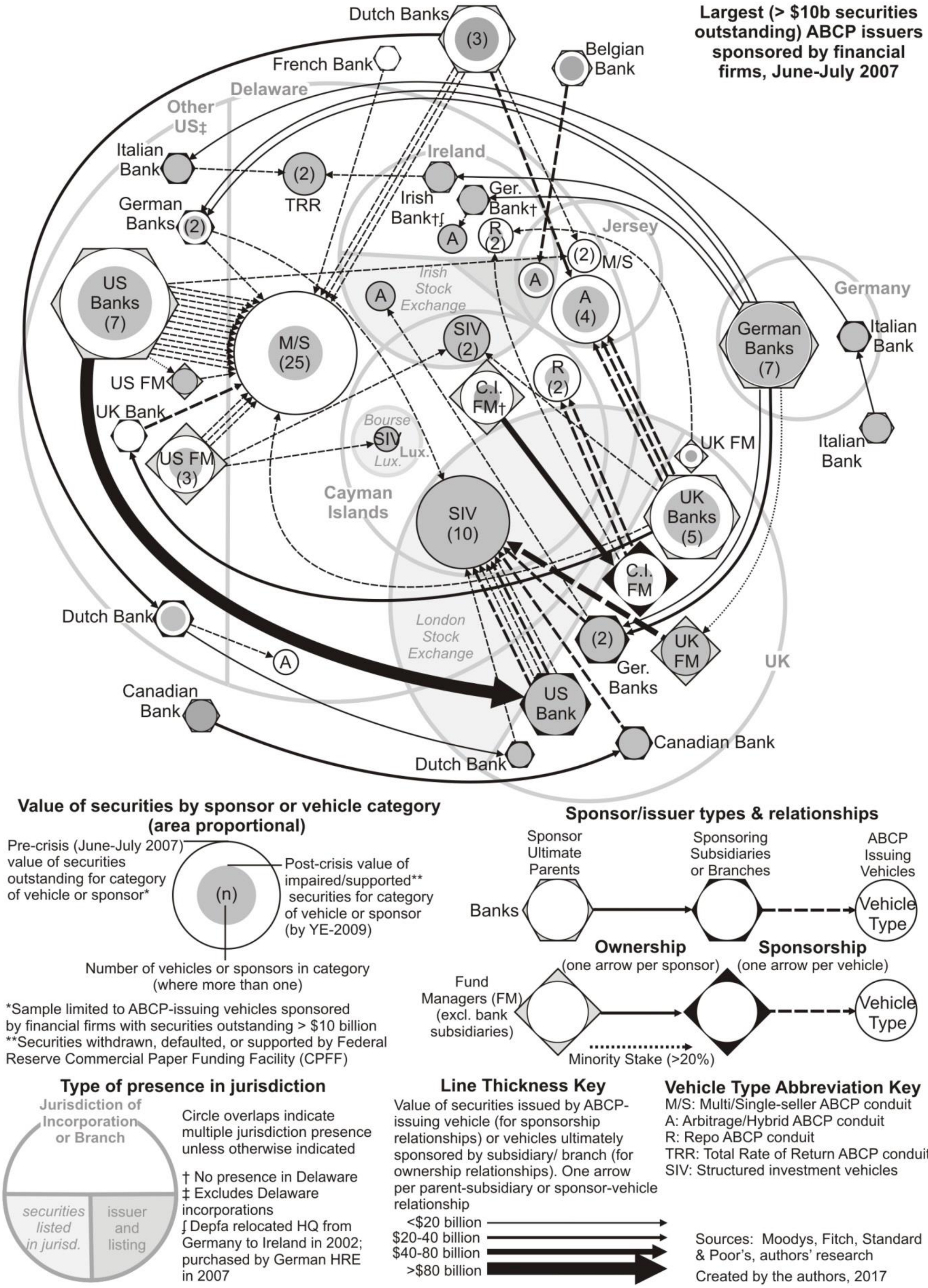

Figure 1. Geography of ABCP issuance and impairment, mid 2007-2009

Figure 1 shows the jurisdictional structure of the largest 54 ABCP conduits and SIVs (outstanding securities > $10 billion) sponsored by financial firms in mid (June-July) 2007. The area of white circles is proportional to the aggregated assets of vehicle classes with a specific jurisdictional organization, and/or the combined value of vehicles sponsored by banks and fund managers of a particular nationality. Both ultimate sponsor nationality and the location of immediately sponsoring subsidiaries or branches are indicated. The area of shaded circles within larger white circles indicates the total value of impaired securities for each category of vehicle or sponsor, with impairment defined as an event of default, the withdrawal of all securities by the sponsor as of the beginning of 2010, and the peak value of securities supported by the Federal Reserve's Commercial Paper Funding Facility (CPFF).[64] The jurisdiction of vehicles or sponsors is indicated by the light grey circles, with jurisdiction of incorporation indicated where circles/wedges have a white fill, jurisdiction of exchange listing indicated by a light grey fill, and both jurisdiction of incorporation and listing indicated by darker grey fill. Vehicles or sponsors falling within multiple circles are domiciled and or listed in all of these jurisdictions unless otherwise indicated.

Several aspects of the diagram are striking. The first is the apparent (but superficial, see section 4) dominance of Delaware as a securitization jurisdiction, with every SIV and conduit in the sample incorporating a Delaware-based vehicle. Just as notable, however, is that most (29/54) of the SIVs and conduits in the sample were not limited to Delaware geographically, but rather extended across two-or-more jurisdictions with respect to domicile and or listing. As a result, the map has an interlocking Venn-diagram structure. Different types of vehicle exhibit pronounced segregation by domicile. Conventional single- and multi-seller conduits were nearly all established as Delaware-only issuer structures. In contrast, all of the SIVs were established with a lead issuer in the Cayman Islands, and co-issuer in Delaware. Meanwhile, most of the arbitrage and hybrid conduits were structured with a lead issuer in Jersey and or Ireland, and a co-issuer in Delaware. On top of these dual domicile arrangements, the jurisdiction of exchange listing added a third layer to the legal geography of securitization in many cases. In this respect, there was a sharp divide between SIVs and ABCP conduits, with all SIVs listing at least some classes of securities (in most cases on the London Stock Exchange, although in a few cases in Ireland or Luxembourg), while only two ABCP conduits were found to have exchange listings (in both cases in Ireland). Moreover, short-term commercial paper itself appears to have only seldom been listed by any type of issuer, with SIVs typically only listing longer maturity securities (e.g. medium term notes).

Both the immediate and ultimate jurisdiction of sponsors exhibited a patterned relationship with issuer type and jurisdiction. SIVs were nearly all sponsored by London-based subsidiaries and branches of non-British banks. By far the most important was Citigroup's UK

[64] The CPFF was a Federal Reserve crisis facility provided to support the commercial paper market. See Federal Reserve, 'Commercial Paper Funding Facility (CPFF)' (2017) [website] <https://www.federalreserve.gov/regreform/reform-cpff.htm> accessed June 23 2017.

subsidiary, Citigroup International (the lone UK-based US bank in the sample), which invented SIVs in the 1980s. The few SIVs whose immediate sponsors were not London-based were sponsored from New York. More broadly, 45/54 vehicles in figure 1 had an immediate sponsor in either the US and UK. In practice, these immediate sponsors were typically (and for foreign banks operating through these countries always) based in New York or London, underscoring the dominance of the 'NY-LON' axis in the design and administration of crisis-implicated securities.[65] Of the remaining 9 vehicles not sponsored from the US or UK, two were sponsored by German banks operating in Ireland (including Depfa, a quasi-German institution rescued by Hypo Real Estate in 2007), while five were sponsored by Dutch banks directly from the Netherlands. Both of these jurisdictions, notably, are leading European corporate tax havens widely used for securitizations in general.[66] With respect to the ultimate sponsorship of vehicle types, American banks were mostly oriented towards 'plain vanilla' single- and multi-seller conduits in Delaware, with the major exception of Citigroup's London-managed SIV activities. In contrast, German banks—particularly the public banks (Landesbanken and IKB) accounting for 5/7 of German sponsors—concentrated on exotic arbitrage and hybrid conduits and SIVs. British and Dutch banks fell in between their German and American peers in this respect.

With respect to security impairment rates, analysis is complicated by the high collinearity between vehicle type, domicile and sponsorship structure. The high failure rate of vehicles domiciled in Jersey, Ireland, and the Cayman Islands, or sponsored by German banks, is strongly associated with the specialization of these jurisdictions/banks in the domiciliation/sponsorship of highly failure-prone arbitrage conduits and SIVs. Likewise, vehicles with an immediate sponsor in London were likely to be highly failure-prone SIVs, which were invariably domiciled in the Cayman Islands and listed in London. Conversely, the low failure rate of vehicles with either a Delaware-only domicile, or US-bank sponsorship, is associated with the tendency of these vehicles to be relatively stable single- or multi-seller conduits. Such collinearity casts doubt on any simple guilt-by-association interpretation of the offshore location of crisis events, as blame for failure could theoretically be assigned to any one (or more) of these parameters.

Figure 2 shows the jurisdictional organization of major CDOs issuing short-term (ABCP and equivalent) securities as of YE-2005, along with the key actors involved in their operation. Due to the complexity of CDOs, only the largest ABCP-issuing CDO series (with > $1 billion in commercial paper issuance) are shown for the sake of clarity. Four categories of actor are shown. Firstly, CDOs are aggregated and labeled based on underwriter (i.e. the investment bank which arranged their structure and marketed their securities). For cash CDOs, the involvement of two additional types of actors are shown; collateral managers responsible for the selection of CDO assets, and providers of liquidity support to short-term CDO tranches. For synthetic CDOs (in this sample entirely underwritten by Goldman Sachs), a fourth type of actor is shown, namely the buyer of Credit Default Swap (CDS) protection (in this case Goldman Sachs itself). In

[65] See Wójcik (n 2) 2736.
[66] See Deacon (n 20).

addition, we show the CDS protection purchased by some CDO liquidity support providers to protect themselves from the associated credit risk.

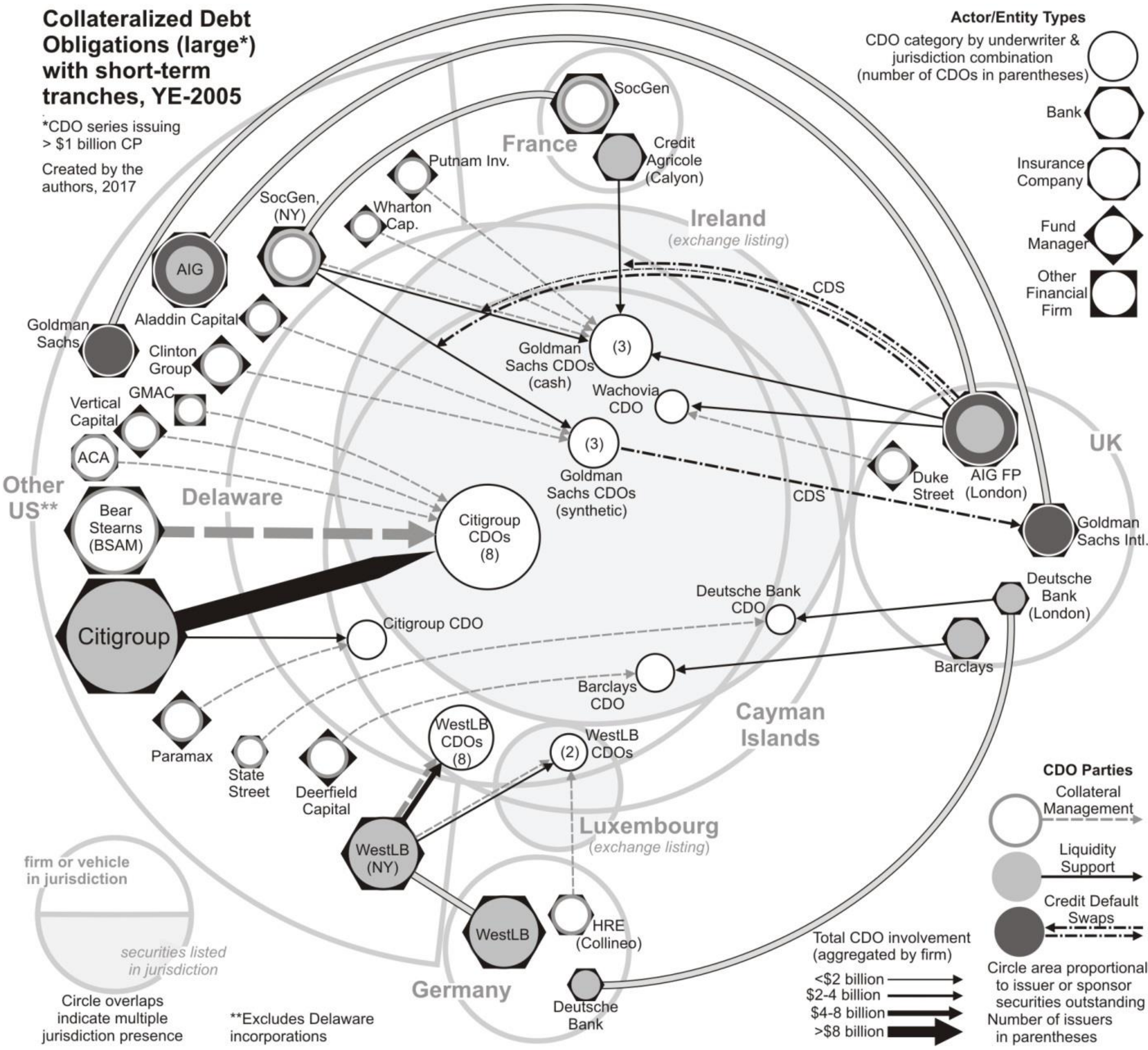

Figure 2. Geography of CDOs with short-term tranches, YE-2005

The CDOs in figure 2 can be mostly grouped into three networks. The first, and largest, is an American network of CDOs underwritten and backstopped by Citigroup, which were mostly managed by Bear Stearns's hedge fund arm (BSAM) in the Klio CDO series. The second is a Goldman Sachs-centered network of cash and synthetic CDOs, with a heavy involvement of AIG and French banks in collateral management and liquidity support. Notably, AIG assumed nearly all of the liquidity risk of CDOs in this network, either directly as a put provider, or indirectly via its assumption of risk from Credit Agricole and Societe Generale through CDS. Beyond the high level of French participation, this network is given a strongly transatlantic character by the fact that the associated CDS activities of Goldman Sachs and AIG were conducted by London affiliates of these firms. The third, and smallest major network, is likewise transatlantic, being dominated by CDOs underwritten, and in most cases managed and backstopped by, New York subsidiaries and branches of German Landesbank WestLB.

The CDOs in the sample exhibit a relatively homogenous jurisdictional structure, which resembles the SIVs in figure 1. This was usually characterized by a dual Cayman Islands-Delaware issuer-co-issuer structure, with a listing on the Irish Stock Exchange (although as for SIVs, short-term ABCP tranches themselves were typically not listed). Like SIVs, the direct management of CDOs was overwhelmingly based in New York or London, albeit with a much higher concentration in the former. London appears, in relation to CDOs, to have primarily specialized in CDS underwriting. Also resembling SIVs is the near-universality of failure of sample CDOs, which negates any attempt to find a straightforward association between vehicle stability and domicile or sponsoring institutions. Indeed, the activities and relationships in figure 2 constituted a critical area of instability in the crisis. It was primarily the CDO-linked losses of Bear Stearns's hedge fund arm (particularly in conjunction with Citi's CDOs) which precipitated the downfall of this firm. These same CDOs also played a leading role in the fall of Citigroup (see below). Finally, the sale of CDS by AIG to Goldman Sachs and its French partner banks in conjunction with these (and similar CDO) series was a central factor in AIG's collapse.[67]

4. PROBLEMATIZING ABCP GOVERNANCE FAILURE—OFFSHORE AND ONSHORE

These patterns fully confirm the 'staggering reports of financial activities in OFCs'[68] prior to the crisis. Most strikingly, the ABCP-issuing vehicles most directly implicated in the crisis itself, and characterized by the highest levels of crisis security impairment—specifically CDOs, SIVs, and credit arbitrage/hybrid conduits—nearly always had a lead issuer located in an offshore jurisdiction outside of the United States, and in many cases also listed securities on the Irish or Luxembourg exchanges. The Cayman Islands held a commanding lead as an offshore (non-US) lead issuer domicile, hosting 42 vehicles in the sample (14 excluding CDOs), while Jersey hosted 6, and Ireland hosted 4. Most importantly, the fact that these lead issuers were invariably paired with a co-issuer in Delaware appears to have been of little significance from the standpoint of US regulatory jurisdiction. The sole purpose of these Delaware co-issuers seems to have been to satisfy restrictions in certain US states on the ability of insurance companies to buy foreign securities (i.e. providing a 'made in USA' label for the purposes of these state regulations alone).[69] Beyond this, the Delaware co-issuing SPVs had no tax or regulatory substance, which was rather attributed to the offshore primary issuer. Consequently,

[67] FCIC (n 3).
[68] Palan et al. (n 7) 166.
[69] Douglas J Lucas, Laurie S Goodman and Frank J Fabozzi, *Collateralized Debt Obligations: Structures and Analysis* (John Wiley & Sons 2006) 14.

Delaware's specialization was effectively in conventional multi- and single-seller conduits, rather than more exotic vehicles.

Notwithstanding their pervasive presence in ABCP-production, however, the contribution of offshore jurisdictions to ABCP-market instability appears to have mostly been an indirect facilitative one—involving a lowering of the cost of Minskian shadow banking innovations—rather than a direct enabling of regulatory arbitrage or opacity. This conclusion can be reached through both a process-of-elimination analysis of pre-crisis prudential and securities regulation, oriented towards ruling-out their potential to serve as significant sites for direct regulatory arbitrage, and a review of the specialist practitioner literature on offshore securitizations. The latter emphasizes points of law, regulation and taxation that were mostly peripheral to financial stability in a direct sense, but represented potential institutional frictions that could impede the deployment of securitized credit instruments (including ABCP) in general. As we will show, it was primarily the need to alleviate these frictions that led to the issuance of all ABCP from jurisdictions with broadly 'offshore' characteristics—including 'onshore-offshore' Delaware—as well as the concentration of the most complex ABCP-issuers (e.g. CDOs and SIVs) in 'small islands' (e.g. the Caymans) offering the highest level of institutional flexibility in areas such as taxation and bankruptcy treatment.

From the standpoint of a process-of-elimination analysis of the direct role of offshore jurisdictions in undercutting financial regulation, what is striking about the massive involvement of offshore jurisdictions in crisis-implicated ABCP-production is how little this geography seems to have mattered within the pre-crisis regulatory architecture. On the one hand, the relevant elements of national onshore regulatory frameworks were typically characterized by a high degree of extraterritoriality, which could not be evaded through the use of paper offshore devices. At the same time, these onshore regulatory frameworks were so riddled with loopholes as to make offshore regulatory arbitrage unnecessary. Ironically, even while domiciled, or in some cases listed offshore, the vehicles presented in section 4 were overwhelmingly structured to operate within these onshore loopholes.

For ABPC prudential regulation, the geography of jurisdiction was primarily defined by Basel. This granted primary responsibility for liquidity supervision to host states on a territorial basis (before Basel III), while assigning primary responsibility for capital supervision to home states on a globally consolidated bank nationality (i.e. headquarters) basis.[70] Given that the failure of the ABCP-market was, as noted in section 3, above-all a liquidity issue, host-responsibility for the former could have theoretically given the offshore domicile of SPVs bearing on their regulation. In practice, however, the fact that very few governments, onshore or offshore, considered these vehicles to be 'credit institutions' subject to direct prudential supervision, made this issue moot.[71] The question was not one of their offshore location, but

[70] D'Hulster (n 21) 300; Herring (n 21); Pistor (n 21).
[71] See Thiemann (n 23) 1203.

rather their off balance sheet treatment (specifically for bank sponsor prudential regulation, which had different criteria than accounting consolidation).

To the extent that these vehicles were constrained by prudential regulation at all, it was indirectly via the global (extraterritorial) capital charges that home regulators imposed on the sponsoring banks that provided vehicles with liquidity backstops.[72] Generally speaking, the laxity of home regulators in defining these charges was so pronounced as to render other prudential regulatory jurisdiction issues moot. SIVs operated in the most complete regulatory void, as they were only protected by implicit sponsor backstops to which no capital charges were attached. However, even explicit liquidity lines extended to ABCP conduits by German, British, Dutch and Belgian national banks were completely free of capital charges until the phasing-in of Basel II between 2006 and 2008. This may explain the fact that virtually all credit arbitrage and hybrid conduits—which were used as devices for the off balance sheet accumulation of third-party, and in particular US mortgage-backed securities—were sponsored by banks headquartered in these countries (see figure 1). Furthermore, although Basel II did introduce partial capital charges for these support lines, this was apparently more than undercut by its relaxation of risk weighting requirements, particularly for mortgage-backed securities.[73]

The pre-crisis capital treatment of bank liquidity backstops of ABCP-issuing conduits and CDOs was marginally more strict in the United States, where backstops were assigned (from 2004, following the experience of Enron) a capital charge equal to 10% of what would have been applied to the underlying assets supported.[74] Furthermore, vehicles that were off balance sheet for capital regulatory but not accounting purposes could still be included in the calculation of bank sponsor leverage ratios. This would have significantly impacted the bank-sponsored credit arbitrage conduits popular in Europe.[75] However, it was insufficient to deter Citigroup from providing $25 billion in liquidity backstops to ABCP-issuing CDOs, the largest of which was the Bear Stearns-managed Klio series in figure 2.[76] Most problematically, the asset risk-weightings from which capital charges were calculated did not come close to reflecting actual credit risk. Indeed, beyond backstopping the liquidity of these CDOs, Citigroup accumulated tens of billions of dollars of them on its own balance sheet at little capital cost. Compounding this problem was the willingness of the US to outsource prudential supervision to private ratings agencies, as well as to banks themselves in the form of internal models (an approach internationalized with Basel II).[77]

To the extent that offshore jurisdictions could have impeded home state prudential supervision of these activities, it seems that this would have been via their role as intermediate

[72] Thiemann (n 23) 1203; Acharya and Schnabl (n 61) 37.
[73] Acharya and Schnabel (n 61) 37; Thiemann (n 23) 1203.
[74] Jim Croke, 'New Developments in Asset-Backed Commercial Paper' (2007) Orrick, Herrington & Sutcliffe LLP report; FCIC (n 3) 138; Thiemann (n 23) 1203.
[75] See Arteta et al. (n 26).
[76] FCIC (n 3) 137-139.
[77] Acharya and Schnabel (n 61) 37; FCIC (n 3) 171.

functional coordinating sites (particularly via subsidiaries), rather than as SPV hosts. As highlighted by Stewart,[78] there are a few cases (visible in figure 1) where Ireland could have played such as role with respect to German bank-sponsored arbitrage conduits. Indeed, perhaps the clearest case of pre-crisis offshore regulatory arbitrage was Depfa's (the 'Irish' nationality bank in figure 1) relocation of its headquarters from Germany to Ireland in 2002.[79] However, this was an unusual case, which actually underscored the importance of home state as opposed to host supervision under Basel. Furthermore, given that German regulation of ABCP conduits was already nil (as noted above), lax Irish regulation seems unlikely to have been an issue for this particular activity. Perhaps most importantly, to the extent that the host geography of direct management did impact vehicle supervision, figures 1 and 2 suggest that this would have mostly concentrated authority in the hands of US and UK regulators, due to the securities sector dominance of New York and London.

Given that ABCP was designed to serve as a direct alternative to conventional bank deposits, prudential regulatory failure had the most substantive bearing on pre-crisis ABCP production (and shadow banking as a whole). However, the fact that this prudential regulatory arbitrage entailed the issuance of securities rendered it potentially susceptible to second-order securities regulatory constraints. Here there appears to have been slightly more scope for offshore regulatory impacts than in prudential regulation. However, this scope was still fairly small (at least for the activities examined here) due to the fact that the relevant onshore securities regulation, like prudential regulation, was both extremely lax in substance and relatively resistant to offshore arbitrage.

Playing the leading role in defining this regulation was the US SEC, which claims an expansively extraterritorial jurisdiction.[80] As was the case for prudential regulation, the major lapses in pre-crisis US securities regulation stemmed from gaps within this extraterritorial onshore regulatory regime. Most importantly, the types of securities examined here were invariably sold in the US market via private placements subject to only minimal regulation in the form of buyer/resale restrictions (which prevented retail investor participation), and the prohibition of outright fraud.[81] These restrictions applied regardless of whether the issuing vehicle was in or outside of the US. Furthermore, the jurisdictional scope claimed by the SEC for the most significant aspect of the private placement regulatory regime—protection against outright fraud—is highly extraterritorial, and cannot be avoided through paper offshore

[78] Stewart (n 7).
[79] See Hans-Joachim Dübel, 'The Capital Structure of Banks and the Practice of Bank Restructuring' (2013) CFS Working Paper No. 2013/04 <https://www.ifk-cfs.de/fileadmin/downloads/publications/wp/2013/CFS_WP_2013-4.pdf> accessed November 9 2016.
[80] Chang (n 20) 89; Deacon (n 20) 55-60; Davison and Litvinoff (n 20).
[81] I.e. securitizations were exempt from registration under the Exchange Act at the issuance and resale level (typically via rule 144A), and from the Investment Company Act at the issuer level, see Croke (n 74); Deacon (n 20) 55-61; FCIC (n 3) 170; Eilis Ferran, Niamh Moloney, Jennifer G Hill and John C Coffee, 'The Regulatory Aftermath of the Global Financial Crisis' (Cambridge University Press 2012) xviii-xix.

structures.[82] This was affirmed in the *SEC v. Tourre* case surrounding the Goldman Sachs-underwritten Abacus 2007-AC1 synthetic CDO, in which a US District Court upheld SEC anti-fraud jurisdiction—despite the fact that the security was sold by a Cayman Islands vehicle to Jersey-based conduit sponsored by German IKB—due to the fact that a person involved in the offer was physically based in New York.[83]

Approximately two thirds of outstanding ABCP as of 2007 was issued in the US market.[84] Nearly all of the remainder was issued in the European market, which seems to have absorbed a disproportionate share of the most toxic US mortgage-backed securities created in the 1-2 years before the crisis.[85] Importantly, it does not seem that the level of regulation of these securities in the EU market could fall substantially below that in the US market, regardless of whether they were issued from or listed in offshore jurisdictions. This was due to the rock-bottom regulatory standard established by US private placements, combined with the fact that the SEC claimed global jurisdiction over fraud for deals substantively connected to the US. Figure 2 suggests that the latter would have been particularly pervasive in the CDO market—where the potential for fraud was most acute—given the substantive dominance of New York in its operation. Beyond this, even securities sold to non-US buyers by non-US domiciled vehicles still typically had to be structured to qualify for a specific exemption (Regulation S) from SEC registration requirements.[86] Perhaps most notably, among offshore vehicles in figures 1 and 2, even those sponsored by non-US firms from a non-US location invariably had a Delaware co-issuer. This indicates that they were selling at least some of their securities to US investors, rather than being purely offshore-market issuers that systematically avoided US market oversight. This can usually be confirmed by direct documentation (e.g. of simultaneous US and Euro CP programs). CDOs, in particular, were typically issued simultaneously into the US market as Rule 144A private placements and outside of the US as Regulation S offerings, with this distinction not having an apparent substantive impact on their stability or transparency. Ultimately, the key issue seems to have been the lack of a perceived need to escape from the SEC's geographic jurisdiction, with securities underwriters engaging in borderline fraudulent sales practices both in and outside of the US.

This having been said, offshore jurisdictions—and in particular EU-jurisdictions such as Ireland or Luxembourg—could have theoretically impeded European efforts to raise securities

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[82] See Chang (n 20) 89; Davison and Litvinoff (n 20).
[83] *SEC v. Tourre*, No. 10 Civ. 3229 (KBF), 2013 BL 145867 (SDNY June 4, 2013). See Davison and Litvinoff (n 20).
[84] Ela Zakaim and Abigail Deméocq, 'International Structured Finance: Europe, Middle East, Africa: 2007 Review & 2008 Outlook' (2008) Moody's Investor Service Special Report.
[85] E.g. the 'stupid Germans' targeted by Goldman Sachs described by Michael Lewis in *The Big Short: Inside the Doomsday Machine* (2011) Penguin Books, or more specifically the CDO-purchasing ABCP-conduits of Landesbanken in figs. 1 and 2.
[86] See Croke (n 74); Deacon (n 20) 55-57. To be fair, Regulation S defined an overseas market registration exemption regime which, although sometimes complex administratively, did little to actually restrict harmful behavior substantively (apart from preventing uncontrolled securities 'flow back' to the US market). However, the same could mostly be said about the US domestic private placement regime for pre-crisis shadow banking.

regulation beyond the minimal level in the US private market (although in practice European governments seem to have been more concerned with maintaining competitive parity in regulatory laxity[87]). The European securities regulatory landscape had a three-pronged structure, revolving around national regulatory frameworks, EU-level directives, and a disproportionately powerful UK national regulator, whose influence stemmed from the dominance of London in the European securities sector. These regulatory issues were entangled with a labyrinth of country-specific tax and legal issues.[88] Probably the most significant offshore aspect of the structures in figures 1 and 2, from the standpoint of EU securities regulation, were the Irish and Luxembourg exchange listings (of Regulation S or dual Rule 144A/Regulation S issued securities). These effectively extended the relatively loose oversight of listings in these countries to the EU securities market as a whole, via the financial passporting regime.[89] These listings were important in relation to the marketability of securities, given that purchases of unlisted debt securities by European institutional investors are typically limited by national regulations and or internal guidelines (in contrast to the US).[90] Ultimately, however, the level of transparency provided by these listings—as governed by EU-directives (e.g. for prospectuses)—was clearly superior to the US private market.[91] Indeed, without the publicly available, and easily accessible (i.e. Google-searchable online) Irish Stock Exchange documents produced by many vehicles examined here (particularly CDOs), we would know much less about their organization.

The inference from this process-of-elimination analysis of the potential direct role of offshore jurisdictions in either primary prudential, or secondary securities regulatory arbitrage, is that their principal role in the activities here was a more subtle, facilitative one. This is supported by the specialist practitioner literature, which, above all, emphasizes points of taxation. This has a key bearing on Minskian 'shadow banking' innovations (including ABCP) that use securitization to bypass regulations constraining conventional banking, as this typically requires the use of large numbers of entities and transactions that can each potentially generate tax 'leakages.' Unless eliminated, these leakages will tend to offset any advantages of securitized credit intermediation. Notably, from a normative standpoint, this is a clear case of tax 'neutrality' as opposed to avoidance, as the goal is not to reduce onshore taxation, but rather

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[87] See Thiemann (n 23) 1203.
[88] See Deacon (n 20).
[89] See Stewart (n 7).
[90] See Robert P Bartlett, 'Inefficiencies in the Information Thicket: A Case Study of Derivative Disclosures during the Financial Crisis' (2010) 36 *Journal of Corporate Law* 1; Alistair Milne and Mario Onorato, 'An Absence of Regulatory Design? Recent European Directives and the Market for Corporate Bonds (2004) City Research Series No. 4 <http://www.cityoflondon.gov.uk/business/economic-research-and-information/research-publications/Documents/2007-2000/An%20Absence%20of%20Regulatory%20Design.pdf> accessed November 9 2016.
[91] As noted by Bartlett (n 90) 33-34, prospectuses for Ireland-listed CDOs 'were available online through the Irish Stock Exchange's website, while monthly financial reports, portfolio schedules, and other financial information were available on the CDO trustees' websites. Although the information would not be as comprehensive as in the case of notes that are registered under the Securities Act, it would nonetheless provide a significant amount of data pertaining to the collateral underlying a CDO, the legal rights associated with individual tranches of securities, and the monthly cash flows to and from the CDO.'

to prevent cash flows from being double-taxed at the SPV in addition to sponsor level.[92] In fact, the US Portfolio Interest Exemption directly encourages such use of tax-neutral offshore bond investment conduits, by exempting them from the withholding taxes that would normally be levied on interest payments to tax havens excluded from tax treaty networks (e.g. the Cayman Islands and Jersey). To at least some extent, the jurisdictional segregation of vehicle types in figures 1 and 2 appears to reflect the complex criteria whereby debt instruments were deemed eligible or ineligible for this exemption. Unsecuritized US consumer loans or home mortgages were reportedly ineligible in general,[93] which may have necessitated the location of issuers holding these types of receivables in Delaware, rather than even-more-tax-friendly locales such as the Caymans.[94] In contrast, vehicles that only purchased and repackaged securities (e.g. SIVs, CDOs, arbitrage conduits) were reportedly least affected by withholding tax issues, and had the greatest freedom to locate offshore.[95] Notably, for Irish or UK-issued securities purchased by a non-treaty offshore jurisdiction SPV, the Quoted Eurobond exemption provided an analog to the US Portfolio Interest Exemption (although it required that these securities be listed).

Provided that withholding tax on the receipt of onshore payments could be bypassed, the location of an issuer in an offshore tax haven such as the Cayman Islands, Jersey, and (for the most part) Ireland, reportedly afforded three key tax advantages. Firstly, withholding taxes on international payments from the vehicle could be avoided regardless of where investors were located. Secondly, the taxes on financial transactions (e.g. VAT and stamp duties) levied by some European countries could be avoided. Thirdly, taxes levied on profits earned by the vehicle itself could be avoided, as could most of the compliance costs associated with an onshore tax presence. These issues were not necessarily prohibitive with respect to the onshore location of vehicles—especially in 'onshore-offshore' Delaware, which has aggressively sought to position itself as the 'jurisdiction of choice for securitization.'[96] However, the avoidance of profit taxation, in particular, often required a careful matching of outgoing and incoming cash flows that was unnecessary if a vehicle was simply located in a zero-tax jurisdiction. In particular, the fiscally-transparent devices that Delaware offered for simpler securitizations (see

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[92] See BCBS, *Report on Special Purpose Entities* <http://www.bis.org/publ/joint23.pdf> accessed November 12 2016; Gorton and Souleles (n 12); Wainwright (n 6) 1287.
[93] See p. 14 in David Z Nirenberg, D. Z. 2013. 'US Taxation of non-US Investors in Securitisation Transactions' In M Nicolaides (ed.) *The International Comparative Legal Guide to Securitisation 2013* (Global Legal Group 2013). <https://www.lw.com/thoughtLeadership/securitisation-2013-guide> accessed November 12 2016.
[94] According to BCBS (n 92) 74-75, the choice of a Cayman Islands versus Delaware SPV for US securitizations is usually determined by tax issues, including the ability to exempt income on US receivables from withholding tax.
[95] See Deacon (n 20) 46.
[96] See Scott E. Waxman, Nicholas I. Froio, Eric N. Feldman, and Ross Antonacci, 'Delaware: The Jurisdiction of Choice for Securitisation' (2004) Potter Anderson & Corroon LLP < http://corporate.findlaw.com/corporate-governance/delaware-the-jurisdiction-of-choice-in-securitisation.html> accessed June 24 2017. The most notable legislation was Delaware's 2002 Asset-Backed Securities Facilitation Act, which reinforced the bankruptcy remoteness of securitization SPVs from sponsors. Just as critical, however, was the provision by statue of a flexible toolbox of general purpose 'alternative entities' designed around the principle of maximizing freedom of contract. Most commonly used for ABCP conduits were limited liability companies (LLCs), which combine the limited liability of corporations with the tax transparent income pass-through of partnerships.

note 97) were reportedly unsuitable for the most complex vehicles such as CDOs, which were actively managed.[97] In these cases, a zero-tax offshore domicile was especially helpful.

As shown in section 3, the Cayman Islands were the dominant jurisdiction for these types of highly sophisticated securitizations. In addition to offering near-zero taxation (which could be found elsewhere), the Caymans had other institutional features conducive to these arrangements. In particular, it allowed for legal certainty to be established on points important to bankruptcy-remote 'robot firms' with complex liability structures. Firstly, beyond simply offering a current zero profit tax-rate, the Caymans allowed 'exempted companies' (the most commonly used securitization vehicle) to lock-in this rate for 20-30 years.[98] Secondly, Caymans law firms advertized the lack of a local legal principle of 'substance over form.'[99] This was emphasized in relation to the capital notes issued by SIVs, which were classified as debt obligations, but had a heavily subordinated equity-like payment structure. In many jurisdictions, the holders of these notes might be considered by courts to be shareholders. Additionally, the complex layers of contractual priority and subordination in vehicle payment 'waterfalls' were given statutory force in the Caymans. Finally, with respect to vehicle bankruptcy treatment more generally, a notable legal feature advertised by Caymans law firms was the absence of any US or English-style mechanism for bankruptcy rehabilitation allowing obligations to creditors could be frozen or discharged[100] (although following the crisis US courts have ruled that offshore 'letterboxes' do not put vehicles out of reach of US bankruptcy jurisdiction[101]).

A final advantage shared by popular SPV domiciliation and securities listing jurisdictions was a streamlining of approval procedures and regulations. In Jersey, security issues were subject to approvals that could take 2 weeks.[102] In the Cayman Islands, however, the relevant regulation was mostly indirect, via supervision of local service providers.[103] Beyond this, there were no authorization, or minimum capital requirements for SPVs, and no restrictions on their transactions and securities issues. Particularly notable, in the context of the rapidly changing

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[97] Donald G Carden and Zey Nasser, 'US Tax Guidelines for CDO Transactions' (2007) In *Global Securitization and Structured Finance* (Deutsche Bank 2007) 120-127; Vinod Kothari, *Securitization: The Financial Instrument of the Future* (John Wiley & Sons 2006) 450.
[98] See Deacon (n 20) 50.
[99] Ian Ashman and Heather Bestwick, 'Securitisation in the Cayman Islands' (2003) Walkers Attorneys at Law; Maples and Calder, 'Location is Key for Structured Investment Vehicles' (2003) February 27 *The International Law Office*; Andrew Moon, 'Cayman Islands Securitisation' May 21 *Mondaq*.
[100] Deacon (n 20) 50; Moon (n 99).
[101] *In re Zais Investment Grade Ltd. VII*, 455 BR 839, 847-49 (Bankr. DNJ 2011). For discussion see Gary Svirsky, Deborah Festa, Alexandra Redwine and Evan T Pickering, 'Bankruptcy Court Overrides CDO Indenture Provision Requiring Noteholder Consent to Liquidation after Accelerating Default (2012) 8(1) *Pratt's Journal of Bankruptcy Law* 3.
[102] Deacon (n 20) 51-52.
[103] Maples and Calder (n 99); Moon (n 99).

landscape of pre-crisis financial innovation (particularly in CDOs), was the fact that this allowed SPVs to be set up in the Caymans within 24 hours.[104]

Notwithstanding this 'light-touch' regulation, however—as noted by many academic commentators on offshore political economy[105]—the situation in offshore jurisdictions catering to OECD corporate clients was not one of zero regulation. On the contrary, as international pressure on offshore jurisdictions has increased, a regulatory void, particularly in the area of transparency, has come to pose an increasing threat to a jurisdiction's reputation for these clients.[106] Any reputational damage from illicit activity, in particular, threatens the more lucrative business of crafting legal contractual devices that exploit onshore loopholes. Most critical, is the existence of a large and experienced local financial services and judicial infrastructure that can ensure compliance with any necessary onshore legal formalities. As one Cayman Islands-based lawyer describes the onshore-offshore division of labor: 'How the isolation of the financial risk is accounted for and reported onshore is determined by the onshore rules. From an offshore perspective the key point is to show that an SPE is real.'[107]

What is particularly notable is that the jurisdictions in figures 1 and 2 fall into the elite echelons of ostensibly 'respectable' offshore locales. The dominance of the Cayman Islands in the most complex forms of securitization is especially significant, as non-OECD 'small-island' jurisdictions have generally had to earn respectability through substantive reforms, in contrast to OECD states which enjoy a more positive reputation by default.[108] As noted in section 2, the Cayman Islands specifically have been ranked above many onshore jurisdictions on key points of financial transparency and due diligence, and have been particularly successful at avoiding international black/grey-listing through a proactive approach to complying with OECD, FATF, and other initiatives. Meanwhile Delaware is consistently placed at the bottom of international offshore jurisdiction governance rankings.[109]

5. CONCLUSION: INSTITUTIONAL INEFFICIENCY AS A MINSKIAN TOBIN TAX

Observing the automatic crisis-generating tendencies of liquid and efficient markets, Keynes advocated the taxation of financial transactions. The idea was that, if financial markets are endogenously unstable, stability could be improved by impeding market operation in a blanket non-specific manner. Following Tobin's advocacy of 'throwing sand in the wheels of our excessively efficient international monetary markets'[110] via transaction taxes, these are typically referred to as Tobin taxes. What the analysis in this paper underscores, from a policy

[104] Ashman and Bestwick (n 99).
[105] E.g. Palan et al. (n 7); Roberts; Vlcek (n 18) 331; Sharman (n 18) 311.
[106] As emphasized in Moon (n 99).
[107] Ibid.
[108] Eden and Kudrle (n 18) 100; Sharman (n 18) 311; Vlcek (n 18) 331.
[109] Findley et al. (n 19).
[110] James Tobin, 'A proposal for International Monetary Reform' (1978) 4(3-4) *Eastern Economic Journal* 153.

standpoint, is that actually-existing financial markets are in fact always subject to unintentional Tobin tax-like institutional obstacles and overhead costs. However, where these are felt is not simply the normal course of financial transactions, but even more so in the context of financial innovation, which invariably creates frictions between newly developed institutions and their inherited surroundings. These frictions can be seen as 'Minskian Tobin taxes' that slow the tendency of financial regulatory frameworks towards obsolescence in the face of this innovation. This is particularly true to the extent that innovations require an increase in financial institutional complexity that generates a corresponding increase in institutional overhead costs.

Offshore jurisdictions appear, at least in relation to the activities examined here, to have primarily served as sites for the reduction of these institutional overhead costs attached to financial innovation. From a regulatory standpoint, this innovation was inherently subversive; however, the role of offshore jurisdictions in this subversion was mainly an indirect facilitative one that involved the provision of tax 'neutrality' as opposed to tax avoidance, and the minimization of transaction costs associated with the threat of bankruptcy proceedings. Meanwhile, the 'black holes' of regulatory failure were onshore—most importantly in Washington DC, New York, London, Berlin and Brussels. Crucially, authorities in these locations had far-reaching prerogative to regulate activates examined in this paper, regardless of whether their geography extended across offshore jurisdictions. For the most part, however, they made only feeble efforts to exercise this prerogative. Indeed, the onshore prudential and securities regulation of these activities was so lax, from a substantive standpoint, that there appears to have been little scope for offshore jurisdictions to undercut it.

In some respects, this constitutes a radical shift in the traditional role of offshore banking centers, which calls into question the distinction between 'on' and 'offshore.' Indeed, from the standpoint of global financial network organization, it has become increasingly appropriate to view offshore jurisdictions as spaces of institutional flexibility *within* the leading 'world city' financial centers, rather than as escape routes from regulation in these centers. At a deeper level, however, this role continues to be predicated on the basic offshore political niche of catering to the rapidly evolving needs of financial firms. This often takes the form of overt legislative malleability; however, it also entails the cumulative development of a toolbox of ready-made institutional devices (e.g. Delaware LLCs and Cayman Islands exempted companies) that can be adapted to serve a wide variety of novel purposes. In many respects, 'onshore-offshore' jurisdictions such as Delaware or Ireland have a growing edge over 'small islands' in providing these services, due to both their preferential access to the largest financial markets, and the erosion of the latter's competitiveness by international regulatory extraterritoriality and reputational double-standards. However, where able to avoid reputational stigmatization, 'small islands' still appear to have advantages in terms of the level of institutional flexibility they can offer. Crucially, from a normative standpoint, their primary advantage for the activities examined here—at least in comparison to Delaware—seems to have been their ability to facilitate devices such as securitization tax neutrality that were regarded as more or less legitimate in the US in principle, but were sometimes complicated in practice by the overarching logic of Federal tax and other codes. Ultimately, the relationship between these jurisdictions was as much cooperative as competitive; in the case of CDOs, for example, the Caymans provided issuers with optimal tax and bankruptcy treatment, while Delaware co-issuers and Irish exchange listings enhanced the marketability of securities in the US and EU.

In all, these findings pose a challenge to the most widespread approach to the criticism of offshore jurisdictions. This narrative has emphasized their role in providing services that are clearly and unambiguously harmful, insofar as they directly undercut the tax base, financial stability, and financial transparency of other states. Meanwhile, it has consistently attacked the idea that offshore jurisdictions can improve the institutional efficiency of the global economy. Our analysis suggests that this is a rather dangerous drawing of intellectual battle lines, wherein offshore critics run the risk of being outflanked. Offshore jurisdictions can in principle be 'cleaned up' from the standpoint of specific abusive practices—and indeed appear to be moving in this direction—yet at the same time preserve their more fundamental business model as sites for flexible institutional innovation. To the extent that they retool themselves in this manner, they may provide a legitimate service to the global economy, wherein they grease the institutional operation of markets; however, given that financial instability is an intrinsic product of market operation and evolution, this service is in fact a source of potentially acute danger.

This in no way undercuts the arguments in favor of reforms targeting overtly abusive forms of regulatory, tax and other forms of inter-jurisdictional arbitrage—both 'offshore' and onshore. Furthermore, given the complexity and scope of the international governance failures that led to the crisis, it is certain that other more direct contributions of offshore jurisdictions can be found, that fall outside of our analytical scope.[111] Rather, what our findings underscore is the need for an additional layer of offshore reform analysis on top of the traditional emphasis on directly harmful effects. It is unwise to expect financial stability to be a byproduct of laws (e.g. tax codes) that were not designed with this objective in mind; rather, there needs to be a deliberately laid-out connection between policy ends and means. Such a paradigm of policy analysis needs to start from the recognition that all actually-existing economic institutional frameworks are imperfect, and can potentially be improved by various forms of innovation and streamlining. Next, it needs to explicitly problematize which forms of 'inefficiency' act as unintentionally beneficial impediments to the endogenous crisis-generating tendencies of markets. Once identified, such accidental impediments can, in theory, be in-turn be repackaged as rationalized and targeted policies.

The proposal of specific policies that would 'throw sand in the wheels' of financial innovation in a generalized manner is beyond the scope of this paper. However, they could take the form of waiting periods on entity creation and or securities issuance (similar to the issuer

[111]Perhaps the most likely, given the structure of Basel, is lax host state liquidity supervision of on-balance sheet bank activities—see example in Shaxson (n 7) 188. Notably, Basel III has addressed this by introducing a consolidated bank Liquidity Coverage Ratio (LCR) similar to that used for capitalization.

‘minimum duration’ requirements imposed by some countries[112]). Another possibility is the additional taxation of complex intermediation structures involving large numbers of entities and transactions, in contrast to the current (Basel III) approach to increasing capital charges based on the size and complexity of financial firms. This existing approach is largely based on a narrow understanding of the emergence of moral hazard from too-big-to-fail-status, which fails to grasp the chimerical nature of the whole concept of ‘market disciplining’ of financial actor behavior.[113]

Such ‘Minskian Tobin Taxes’ would need to have a sufficiently extraterritorial design to prevent offshore circumvention. However, this does not appear to be an insurmountable problem, given the existing tendency towards national extraterritoriality and international coordination in financial regulation and taxation. A more fundamental issue, given the ‘incompleteness’ of any regulatory framework, is the potential for offshore jurisdictions (including US states) to continue to facilitate the opening of new dimensions of institutional innovation that fall outside of the scope of these frameworks. Given that offshore jurisdictions can, almost by definition, modify their legal and regulatory frameworks more rapidly than onshore ones, it is not entirely clear how this problem can be dealt with.

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[112] See Deacon (n 20) 45.

[113] As noted by Katharina Pistor, in ‘A Legal Theory of Finance’ (2013) Columbia Law School Public Law & Legal Theory Working Paper Group, Paper Number 13-348 <http://www.modernmoneynetwork.org/sites/default/files/biblio/Legal%20Theory%20of%20Finance.pdf> accessed November 12 2016. ‘…strengthening commitment devices [not to bailout] alone without reducing the system’s structural vulnerability to crises can prove counterproductive.’